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ABSTRACT

In the prevailing atmosphere of concern for basic skills development, Houston Community College System (HCCS) faculty and administration perceived the need for a self-evaluation of HCCS's developmental studies programs. The purposes of the resulting study are: (1) to evaluate the effectiveness of the institution's developmental studies programs by comparing program outcomes to accepted benchmarks; and (2) to compare features and practices of the programs to professional standards in order to facilitate improved service to students. The particular purpose of Phase 1 is to compare HCCS's program with other state two-year institutions using specific remedial success indicators, in order to provide the context for a more detailed examination of HCCS's own developmental studies programs. The first measure utilized by this study is success on the TASP test. The second measure utilized is analysis of the 1994-95 incoming student cohort to determine how many completed remediation and related college-level work. The third indicator utilized was the performance of remediated students as compared with their unremediated peers. The fourth indicator used was the rate of student success as analyzed by student ethnicity. The conclusions state that HCCS serves a particularly underprepared population of students who, after remediation, succeed at a comparable or higher rate than similar students at other colleges. (Contains 15 references.) (VWC)

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Houston Community College System

A Self-Evaluation of the Developmental Studies Programs

Report on Phase One of the Evaluation

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Houston Community College System

A Self-Evaluation of the Developmental Studies Programs

Report on Phase One of the Evaluation

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Acknowledgments

During its more than twenty-five years of history, Houston Community College System has grown and changed in response to the needs of the communities it serves. A most compelling need has been for educational programs that can compensate for the earlier academic disadvantages experienced by many of our students. As a result, efforts were made to meet the needs of HCCS' underprepared students long before such strategies were mandated.

This *Self-Evaluation of the Developmental Studies Programs at Houston Community College System* was begun in response to a charge by Chancellor Ruth Burgos-Sasscer to determine how the System's developmental studies programs compare to those of other schools and what changes could be made to further facilitate student success. "Phase One" of the study addresses the first question, that of providing a comparative framework for HCCS' programs. Dr. Burgos-Sasscer aptly noted that, with Houston Community College System's size and its student population, this system could and should be in the forefront of developmental studies instruction at the community college level. Her vision has provided the impetus for this two-part study.

The assistance of faculty, chairpersons and academic administration has been invaluable throughout the process of developing this report, and their role will increase during "Phase Two" of the study. So, it is with a mixture of appreciation and anticipation that we acknowledge their significant contributions of information, perspective and support.

The unwavering support of Dr. Patricia Williamson, Vice Chancellor for Institutional Development, and Dr. Charles Orsak, Director of the Office of Institutional Research, paired with much practical assistance from the departmental secretary Betty Brittain, have smoothed the way over potential obstacles, enabling the report to be completed. Lady Huffaker has spent many hours designing and editing the final document, which owes much to her considerable skill with desktop publishing. Michael Alexander utilized his writing talent in preparing the literature section and graciously took on any other task he was asked to perform. Our colleagues in the Office of Institutional Research have been helpful and supportive throughout.

Grateful appreciation is expressed to all those who have aided the progress of this effort.

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Houston Community College System

Mission

The Houston Community College System is an open admission, public institution of higher education offering associate degrees, certificates, workforce training, and lifelong learning opportunities for all people in the communities we serve. As a member of the community, HCCS works in partnership to provide quality educational programs and services that enhance economic and cultural development. In all our endeavors, we are committed to excellence.

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Executive Summary

A Self-Evaluation of the Developmental Studies Programs of HCCS: Phase One

Background

In the prevailing atmosphere of concern for basic skills development, Houston Community College System faculty and administration perceived the need for a self-evaluation of HCCS' developmental studies programs. The purposes of the resulting study are: 1) to evaluate the effectiveness of the institution's developmental studies programs by comparing program outcomes to accepted benchmarks; and 2) to compare features and practices of the programs to professional standards in order to facilitate improved service to students. The particular purpose of Phase One is to compare HCCS' program with other State two-year institutions using specific remedial success indicators, in order to provide the context for a more detailed examination of HCCS' own developmental studies programs.

Research

The following questions are the basis for research conducted in Phase One of the self-evaluation.

1. How does the TASP Test pass rate for HCCS students compare to that of students in other institutions?

2. From a given cohort of HCCS students, how many completed remediation and successfully completed related college-level work? How do these completion rates compare to those of other institutions?

3. How does the performance of remediated versus nonremediated students at HCCS compare to that of like students in other two-year institutions? Use the following as success indicators:

    - GPA of 2.0 or better overall

    - Passing grade in the first college-level mathematics or English course

4. How does the ethnic composition of HCCS' incoming students compare to that of other public two-year institutions in the state? Do success rates vary when analyzed by student ethnicity?

Method

Data supplied by the Texas Higher Education Coordinating Board (THECB) were utilized to make comparisons of HCCS student success with that of other students across the state. Selection of colleges for the study was based upon a similarity to HCCS. Data for Research Question 1 were comprised of test results for the 1996-97 academic year. Data used for Research Questions 2-4 of the study pertained to the Fall 1994 Entering Cohort and their achievement at the end of the Spring term of 1996.

Results

- The TASP Test passing rate at all Texas two-year colleges (STATE) on all three sections of the TASP Test was 39.4%, while that rate for students at HCCS was 33.8%. Pass rates for selected institutions utilized in this study exceeded both the HCCS and State passing rate. *(Ref. p. 10)*

- The TASP Test passing rate on initial attempt of 36.0% for HCCS students fell just below the aggregated rate of 38.5% for all of the state's public two-year institutions. Pass rates for selected institutions utilized in this study exceeded both HCCS and State pass rates. *(Ref. p. 10)*

- In the fall term of 1994, students who had performed successfully on other standardized tests, such as SAT, ACT or TAAS, were exempted from TASP testing. Only 4.9% of HCCS' entering students qualified for exemptions, as compared to 7.8% of students exempted statewide. All other institutions in the study granted more exemptions than HCCS, with the greatest percentage (12%) being given by Alamo Community College District. *(Ref. p. 11)*

- Of the 1994 entering student cohort at HCCS, 29.7% of those requiring mathematics remediation had completed it by the end of the spring 1996 term; remediated students were more likely to complete the first college-level mathematics course than were students who had not been diagnosed as requiring remediation. Of those completing remediation and attempting college-level mathematics at HCCS, 63.9% succeeded with a grade of 2.0 or better as compared to the state average of 58.7%. The rate of success was exceeded by some but not all of the colleges in the study. *(Ref. p. 13)*

- In reading, 20% of those requiring remediation had completed it by the end of the spring 1996 term. In the same time period, 23.4% of those requiring writing remediation had completed it, and 17% had completed the first college-level English course. At 81.5%, HCCS reported a higher rate of success in the first college-level writing course than the state average and than most colleges in the study. *(Ref. pp. 15-16)*

- When the performance of remediated and nonremediated students was compared, HCCS students who had completed remediation were successful in their first related college-level course within five percentage points or less of the rate achieved by students not requiring remediation. In each of the three developmental subject areas, remediated HCCS students were more likely than those statewide to approximate the success of their nonremedial peers. *(Ref. pp. 17-19)*

- With a student body composed of 36% Anglo-American, 20% African-American, 27.2% Hispanic and 16.7% reported as Other, HCCS is one of the most diverse institutions in the state. Among the colleges profiled in this study, only Alamo Community College District served a greater percentage of minority students than did HCCS in the fall of 1994. *(Ref. p. 20)*

- Of those completing remediation in writing and mathematics at HCCS, passing rates for initial college-level courses for all ethnic groups exceeded state averages, with a single exception: HCCS' Anglo-American students succeeded in mathematics at a rate lower than any other ethnic group reported and lower than the State average for their respective ethnic group. In college-level writing, HCCS' Anglo-American students succeeded at a lower rate than students in other ethnic groups, but all ethnic groups were more successful than the state average. *(Ref. pp. 20-21)*

Implications

- The percentage of students passing all sections of the TASP Test *on the initial attempt* may be more appropriately considered as an indicator of overall preparedness of students entering a given institution than as a measure of the effectiveness of the remediation provided by the college. Those students included with passing scores may have: 1) taken the test while in high school; 2) taken the test while out of school but previous to any remedial courses; 3) taken the test for the first time after being diagnosed with a locally prescribed test as needing remediation *and after* completing the remedial courses.

- Relatively low initial TASP Test passing rates and low rates of exemption based on ACT, SAT and TAAS testing are indicators of a student body that is generally not college-ready.

- According to THECB a successful remedial process is indicated by remediated students who achieve success in college-level work at a rate within ten percentage points of students not requiring remediation. By this standard, HCCS' developmental programs appear to be as successful as similar colleges used in the study and as all other public two-year institutions statewide.

- Differentials in entry rates to higher education and in academic performance among ethnic groups have been documented at both state and national levels. As with students at other institutions, HCCS' student success rates varied by ethnicity. Minority students who completed remediation and attempted college-level work were slightly more likely than Anglo-American students to pass the first related college-level course following remediation. In addition, HCCS served a higher percentage of minority students, and they experienced a higher rate of success than reported by most other selected institutions and the State as a whole.

- Statewide analysis, while providing context for program evaluation, is not sufficiently precise to indicate directions for program improvement. Further research is needed. Phase Two of the Self-Evaluation will include tracking of specific cohorts of HCCS students to determine what strategies are most successful in supporting student success.

Conclusions

It is generally acknowledged at HCCS and in other colleges in the State that success rates are lower than might be expected. However, in remediation as measured by the TASP Program, the data examined in the course of this Self-Evaluation indicate that outcomes of HCCS' programs are in line with those achieved by other programs, providing a firm basis for program improvement.

It appears that HCCS serves a particularly underprepared population of students who, after remediation, succeed at a comparable or higher rate than similar students at other colleges. In some cases HCCS' remediated students succeed at a higher rate than students who were not diagnosed as requiring developmental instruction. In addition, HCCS' African-American, Hispanic and Other-classified students succeed at a higher rate than its Anglo-American students, indicating an instructional environment that meets the needs of a diverse student body. The fact that small numbers of students continue and complete remediation at HCCS and elsewhere is problematic; these statistics signal a need for further research into instruction for underprepared students.

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Chapter 1

Planning for Self-Evaluation

Context of the Problem

The urgency of questions surrounding remedial education and post-secondary institutions is underscored at City University of New York (CUNY), as reported by *The Chronicle of Higher Education* in its June 5, 1998, article entitled, "CUNY's 4-Year Colleges Ordered to Phase Out Remedial Education." Following several months of vigorous discussions, trustees of CUNY voted to eliminate developmental studies courses at the system's 11 four-year colleges effective in September 1999. The change was characterized as "transforming CUNY's historic commitment to open admissions" (p. A26). The author noted that last year approximately half of the system's incoming students required some remediation, and that roughly two-thirds of the students who may be excluded under the new rule would be African-American, Asian, or Hispanic. It was noted by one of the trustees that "the goal isn't to shrink remedial education but to relocate it at the six community colleges or in the hands of a private provider"(p. A27). Remedial courses will continue to be provided for those who need them at the system's community colleges and at CUNY in summer immersion programs prior to university admission. Similar, though less decisive, exchanges are occurring across the nation as educators, legislators and interested citizens line up to debate "what should be" versus "what is" in respect to the basic skills preparation of academically disadvantaged college students.

Need for Program Evaluation

Missions vary from one institution to the next, with the two-year college being most likely to take up the challenge of compensating for past educational inequities which have resulted in today's basic skills crisis. Whichever side of the debate one takes, there is a need for solid information about student outcomes and professional practices in remedial education. Hunter R. Boylan (1997) observed that developmental studies programs are much more likely to be scrutinized for effectiveness than are other instructional programs because of the uncertainty of "whose job it is" to provide the services. He further noted that what is needed is systematic and regular evaluation of remedial instructional programs.

In early 1998, Chancellor Ruth Burgos-Sasscer charged the Office of Institutional Research to undertake the performance of a self-evaluative study of the developmental programs at Houston Community College System. Although the Office of Institutional Research is responsible for the final product, it was determined in the early stages of planning that developmental faculty representative of all like faculty across the system would be integrally involved in all aspects of the study. To best ensure this, the chief research team was composed of one representative from the research office and two developmental instructors, each from different disciplinary areas. Input has been garnered from a wide variety of faculty from the English, mathematics, and reading areas. They have worked closely with the research team fashioning not only the research questions, but also the methodology for data gathering and reporting.

It was determined that the self-evaluation would proceed in two phases. Phase One, the results of which are reported on subsequent pages of this particular portion of this report, is guided by four questions formed from previous research conducted by the Texas Higher Education Coordinating Board on the TASP program. The focus of Phase One is a comparison of HCCS developmental program performance

with statewide benchmarks. Phase Two, with a more internal focus on the same HCCS programs, is guided by questions formed by developmental faculty. Faculty input to Phase Two will be particularly crucial to ensure that data gathered are not only reflective of real classroom practice and conditions, but also germane to actual decisions and concerns that must be addressed. With the concern for under-prepared students displayed throughout the history of HCCS, it is not surprising that HCCS' developmental faculty members are responding to the self-evaluation with enthusiasm.

Developmental Studies Programs at HCCS

During recent months the Houston Community College System has been involved in defining its vision, mission and values. Of the values that emerged from this process, the first three are addressed directly by this research project:

- Student Success
- Quality Assurance
- Access to Education

In addition, the HCCS mission clearly identifies the college system as an "open admission" post-secondary institution that is committed to serving people in all of its communities. The *1997-98 Fact Book* reports that 35% of HCCS students are academically disadvantaged when they enroll. The need to serve this population underscores the importance of quality developmental studies instruction at HCCS. Remediation is often the key to student success and access to higher education.

At HCCS an understanding of the need for quality developmental studies instruction to ensure student success preceded the State's mandate by a number of years. Evidence of this includes the use of departmental tests to determine student entry into course work or into "remedial" instruction, common at HCCS long before the practice became a requirement.

Summary

The two primary reasons for performing an evaluation are to "see how we're doing," and to discover information which will assist in program improvement (Boylan, 1997). The initial four questions, which are considered in Phase One of the Self-Evaluation, provide comparability with statewide benchmarks, while the remaining questions, to be addressed in Phase Two, can only be evaluated against internal goals and standards. By using this comprehensive method, this study should produce significant data on the quality of the developmental studies programs that can be used for continued improvement.

Statement of Purpose

The purposes of the study are:

1) to evaluate the effectiveness of the developmental studies programs of the Houston Community College System by comparing HCCS student outcomes to accepted benchmarks; and

2) to compare features and practices of the programs to professional standards in order to identify areas for improving services to students.

3) to use the results of the self-evaluation for improvement of the developmental studies programs.

Research Questions: Phase One

The following questions are addressed in Phase One of this study.

1) How does the TASP Test pass rate for HCCS students compare to that of students in other institutions?

2) From a given cohort of HCCS students, how many completed remediation and successfully completed college-level work in the area? How do these completion rates compare to those of other institutions?

3) How does the performance of remediated versus nonremediated students at HCCS compare to that of like students in other two-year institutions? Use the following as success indicators:

   - GPA of 2.0 or better, overall
   - Passing grade in the first college-level mathematics or English course

4) How does the ethnic composition of HCCS' incoming students compare to that of other two-year institutions in the state? Do success rates vary when analyzed by student ethnicity?

Definition of Terms

1) **All Texas Two-year Institutions:** all public two-year colleges reporting to THECB (for this study abbreviated as STATE).

2) **Completers:** per THECB, refers to those who have passed the TASP Test after being diagnosed as requiring remediation.

3) **Developmental Studies and Remedial Education:** terms are utilized interchangeably.

4) **Selected Colleges:** those which are interesting to researchers because of similarity in size and/or configuration to HCCS. For this study, Alamo Community College District (ACCD), Austin Community College (ACC), Dallas County Community College District (DCCCD), and Tarrant County Junior College District (TCJCD).

Chapter 2

Survey of Related Documents: Phase One

During the course of planning for and conducting Phase One of the "Self-Evaluation of the Developmental Studies Program," several documents have provided context and guidance. These documents, primarily publications of the Texas Higher Education Coordinating Board and other agencies, are reviewed in this chapter for their significance to the comparisons discussed in Phase One of the study. The report for Phase Two of the study will include a broader review of the professional literature associated with developmental studies.

Basic Skills Crisis

Often referred to as the "Nation's Report Card", the *NAEP 1996 Trends in Academic Progress Report* (May, 1998) is produced regularly by the National Center for Education Statistics, which collects valuable information about progress in academic achievement. Long-term assessments from 1996 testing indicate an overall pattern of increased performance in mathematics among 17-year-olds, yet the average score in 1996 was not significantly different from the average in 1973. The pattern of increases in average reading scores for 17-year-olds from 1971 to 1988 was not sustained into the 1990s. Although the overall pattern shows improved performance across assessment years, the average score in 1996 was not significantly different from counterpart scores in 1971. An overall decline in performance is evident in the average writing scores as reported by NCES. Although some movement in achievement levels has been observed, significant progress has not been reported at the secondary school level.

An ad hoc study performed recently by HCCS' Office of Institutional Research compared remedial status of recent high school students (under 20 years of age) with students who have been out of high school for several years (ages 20-29). The study found little difference in the percentage needing remediation between recent high school graduates and graduates who have been out of high school for two or more years. There is a greater difference between high school and non high-school graduates in the under 20 group than among those in the 20-29 age group. Most striking of all, with the inclusion of students who were exempted – based on TASP, ACT, SAT and TAAS – *between 50-76% of the recent high school graduates under 20 still required remediation.* The remediation rate for the 20-29 age group was smaller (41-64%). This may have been due in part to the status of some as transfer students and returning students who may have completed remediation at another institution. Intended to compare the preparation of recent graduates with older students, the study was most successful in reconfirming the observation that large numbers of students are coming to Houston Community College System without the requisite skills for success.

The Urban Systemic Initiative (USI) of the National Science foundation supports efforts to upgrade teaching and learning in math and science in 17 of the nation's largest and poorest city school districts. In the report *Improving Student Performance in the Inner City,* researchers assess the benefits of these efforts and to cull understanding of urban systems for future reforms, have reviewed studies of student performance in urban schools.

Urban school enrollment, approximately one third of all elementary and secondary school children (and expected to increase to one half in the next ten years,) is "overwhelmingly" composed of economically disadvantaged, minority students. African-Americans make up 16.7% of national elementary and secondary school students, but in central-city students, they comprise 32.9% of the student body.

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Hispanics, 11.9% nationally, make up 21.6% of central-city students. While African-American percentages in central cities have been stable for more than 20 years, Hispanic percentages have more than doubled partly due to immigration, posing a linguistic challenge. Economic disadvantage, occurring disproportionly in African-American and Hispanic families, crime, unemployment, and lower access to health care are all factors affect students' ability to succeed. The document cites a shortage of well-prepared teachers and racial imbalances between teachers and students, as continuing factors in the urban environment.

In summary, a national basic skills crisis is exacerbated by educational disadvantage and socioeconomic factors to produce great numbers of students who are unprepared for college-level work. Educators and policymakers continue to seek solutions to the problems posed by undereducation.

Current Directions in Developmental Education

The *Report of the Developmental Education Work Group* was produced by the Texas Association of Junior and Community College Instructional Administrators, in May of 1995. The report makes reference to previous studies on developmental studies, documenting that high proportions of students need remedial work in order to succeed in college. The "typical" student in remediation is 25 years of age, enrolled in a community college (87%,) pursuing an associate (43%) or baccalaureate (16%) degree, having earned approximately six credit hours. It was observed in the report that such nontraditional students, however, may benefit from remediation beyond the earning of a degree. Evaluation of developmental education must also take into account the benefits of increased literacy and basic work force skills.

Recommendations of the Work Group included, among other measures, that (1) a major study be funded to set a common "cut" score for local tests (Pre-TASP, ASSET, and MAPS/College Board) and official tests (TASP, ACT, and SAT) to identify readiness for college, workplace basic skills and functional literacy; (2) placement policies and restrictions on college-level enrollment be set for developmental students; (3) assessment and placement in postsecondary developmental programs and Adult Basic Education programs be coordinated to move students systematically from one level of skill achievement to the next, with a recommendation that the National Literacy Study be taken as a guide for this; (4) a quantitative research study be made of current levels of performance in postsecondary developmental programs; (5) an automated evaluation system be devised to produce reports on program effectiveness for institutions to use in self-improvement efforts; and (6) exemplary practices in developmental education be determined and described by quantitative study and additional qualitative data, gathered on site visits to institutions with high-ranking performance data.

These future studies should take into account the individual student's performance in remediation, the severity of need for remediation, full-time/part-time status, and field of study, whether academic, technical or noncredit. This data should be analyzed to give an evaluation of specific disciplines as well as of the overall remediation program. Outcome figures for cohorts of entering students grouped according to deficiency levels ("none, math only, reading only, writing only, writing and reading, math and writing, math and reading, and all three") should be calculated at intervals of one, three, and five years after initial enrollment. Outcomes for students who successfully complete remediation should be made to show figures for those retained at the institution, those transferred to other 2-year and those transferred to 4-year institutions, those that graduated, those that left higher education with a GPA of 2.0 or better, those that left higher education for employment, and those that passed all sections of the official TASP test. These guidelines have been incorporated into the design of this "Self-Evaluation."

In the Fifth Annual Report entitled *Annual Report on the TASP & the Effectiveness of Remediation,* published by THECB in July 1996, it was reported that in 1993-94, nearly 30% of freshman and sophomore students were placed in remediation by TASP or local placement tests (the latter accounting

for 60% of all remediation.) In that year, community and technical college students accounted for 84% of total remedial students. Both the number and the percentage of minority (non-Anglo-American) students attempting the TASP have increased in a trend comparison from 1990 to 1995. Passing rates have also increased for all minorities except Asians. Specifically, reporting of the 1993-94 academic year showed that Hispanic students attempting the TASP increased by two percent, while the percentage passing increased by one percent. The percentage of African-American students attempting the TASP did not increase, but the percentage that passed did increase by one percent. Asian students attempting the TASP increased by one percent, but those that passed decreased by one percent in that year.

The same THECB report indicated that students completing remediation in the State perform at a level comparable to students who did not require remediation. Cohort reports show that they obtained a 2.0 grade point average or higher and passed the first college-level English courses, at a rate that is within 10 percentage points of nonremedial students. They also passed the first college-level Mathematics courses within 20 percentage points of nonremedial students. Remediated students even earn certificates and associate degrees at a higher rate than nonremedial students, if given additional time to complete their degrees. Nonremedial students, however, do earn proportionately more baccalaureate degrees than their remediated peers. The use of multiple indicators of student progress and performance (GPA, passing, completion, etc.) is believed to provide the best information regarding program effectiveness.

In concert with the directions taken by THECB, the Legislative Budget Board has directed Texas Public Community Colleges to report several Performance Measures, which relate to the topics of this self-evaluation report. Its brief document, issued in 1997, included among these the percentages of minority students served, percentage of academically disadvantaged students enrolled, percentage of economically disadvantaged students enrolled. Also a required measure, the percentage of remedial students who pass TASP is calculated by the THECB for each college that reports separately. All of these measures indicate the current direction of thought and policy in the educational community, which is to mandate accountability for specific learner outcomes.

Access and Diversity

The Advisory Committee on Criteria for Diversity (ACCD), founded in response to the Hopwood decision, reports to the Texas Higher Education Coordinating Board and is intended to develop diversity in higher education for minority students. In *Alternative Diversity Criteria: Analysis and Recommendations*, dated January 1997, ACCD suggests that diversity cannot be judged merely by minority access to first time enrollment. True access depends on a minority student's access to receiving a desired degree, with the result that retention and ultimately graduation are essential foci for institutional policies and programs. Adequate financial resources, as a primary influence on completion, need to be assured for minority students if this goal is to be realized. The ACCD also recommends that the curriculum be made to acknowledge cultural and historical influences on minority students, and that minority faculty development and "transculturation" programs be given a high priority, in order to prepare minority students for educational advancement.

Texas Challenged: The Implications of Population Change for Public Service Demand in Texas, a 1996 publication of the Texas Legislative Council, indicated that increases in enrollment for Specialized Programs from 1990 to 1994 generally exceeded those for the total population (8.2%) or total enrollment (10.9%.) Minority group members account for more than 99% of Bilingual Education (which increased by 37.1%) and more than 50% of all participants in Vocational Education (which increased by 11.4%.). In Bilingual Education, for instance, Anglo-American enrollment increased by 12.5%, African-American by 36.7%, Hispanic by 37.6%, while Others decreased by 14%.

Projections for 2030, assuming the 1980-1990 rates of net migration, show a college enrollment growth of 71.1%. This figure represents a 6% decrease in Anglo-Americans, but an increase of 41.9% in

African-Americans, 224.1% in Hispanics, and 308.8% in Others. In other words, Hispanic students would account for 80.2% of the total increase in college enrollment, Other students for 17.7%, African-American students for 7% and Anglo-American students for almost negative five percent. The growth in minority enrollment is expected to fuel Specialized Education programs; in fact, growth in those programs will be greater than that of the overall enrollment (tables 6.9 through 6.11, pages 150-151.) Projections for Bilingual Education show a 162.5% increase (Anglo-Americans down by 17.5%, African-Americans down by 28.6%, Hispanics up by 165.2%, and Others up by 67.3%.) Economically Disadvantaged Students will increase 116.2% (Anglo-Americans increasing by 24.3%, African-Americans by 34.9%, Hispanics by 172.2%, and Others by 300.1%.) Vocational Training will be up by 79.8% (Anglo-Americans increasing by 17.5%, African-Americans by 41.2%, Hispanics by 180.5%, and Others by 344.9%.) It is apparent that the future of Texas education will be closely tied to its minority students.

In *Underrepresentation and the Question of Diversity: Women & Minorities in the Community College*, by Gillett-Karam, Roueche & Roueche, it was observed that minorities seem to bear the entire burden of adaptation to the "dominant" culture. In the 1991 book it was noted that trends underscore the need for more aggressive measures to increase college access and degree attainment by minority students. Campuses must increase enrollment, retention, financial aid and faculty for minorities; increase minority faculty and administrators, and also monitor minority student enrollment, participation and completion rates, all to the end of improving the college "climate." College leaders must observe behavioral patterns and question dominant values that guide the college organization in order to effect these changes. Changing group behavior is best represented by a "paradoxical model," a continuing working-out of issues, such as dependency/authority, creativity/stability, survival/growth, which usually surface around catalytic marker events or critical incidents.

The issue of minority inclusion presents just such a dilemma and an opportunity to reappraise our practices. Various studies recommend that teachers become aware of how different cultural backgrounds affect communication and learning, but reducing the issue to ethnicity invites stereotyping. A conceptual framework for a continuum of learning styles provides a process for examining how students learn and assessing their own impact on student learning style. Research indicates that teachers form expectations of the basis of prior achievement, physical attractiveness, sex language, socioeconomic status and race-ethnicity. To the extent that minority students are actually underprepared, or simply stereotyped as low achievers, they may be called on less frequently, given less time to respond, interrupted or criticized more often, and given insincere or generalized praise. Cultural differences and norms may be demonstrated even with eye contact. For the minority student, these factors may inhibit participation.

The Chronicle of Higher Education, June 5, 1998, noted that minority students represented 26.1% of US Citizen enrollment in higher education, 3.2% up from the previous year. Hispanics rose the fastest, at 5.3%. African-American enrollment was up 1.7%. Asian Americans rose 3.3% and Native Americans rose 2.1%, while Anglo-American enrollment was down by just under 1%. Deborah J. Carter, Deputy Director of the Office of Minorities in Higher Education, characterized these 1996 figures as "very limited growth, and nothing like the gains we saw at the beginning of the 1990s." From 1990 to 1991, for example, minority enrollment rose 9.1%. There is concern that the next year's figures may show even smaller increases, due to court decisions in Texas and California which virtually eliminate affirmative action for admissions in those states.

Texas Academic Skills Program

The Texas Academic Skills Program (TASP) has matured since its creation by the 70th Texas Legislature in 1987. The increased availability of student success data has enabled detailed scrutiny of the program. The *Annual Report on the TASP and the Effectiveness of Remediation, July, 1996*, published by the Texas Higher Education Coordinating Board, and the supporting data files make

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possible "both a trend analysis of year-end test results and a cohort analysis of academic performance." Based on 1.2 million TASP examinations, the data are available at three levels of aggregation: statewide for all institutions; statewide for all junior institutions; by individual colleges and college systems.

The guiding principles of the TASP evaluation system and the data collection which supports it are as follows: 1) Student academic progress should be measured over time; 2) Multiple indicators of success are necessary to form conclusions; 3) Successful remediation should enable "skills-deficient" students to perform comparably to those who require no remediation.

Phase One of the "Self-Evaluation" utilizes THECB data to respond to research questions which parallel the indicators utilized in several documents, such as the *Summary TASP Test Results for Academic year 1996-97* (THECB, 1998) and the *Annual Report on the TASP* (THECB, 1996). The indicators are as follows:

- Success on the TASP Test.
- Grade Point Average of 2.0 or greater.
- Grade in first college-level English course.
- Grade in first college-level mathematics course.

The data have been examined for the preceding indicators using research questions, which contrast the performance of remediated students with that of students requiring no remediation. Perspective is added by comparing HCCS success rates with those of other two-year institutions in the state. The academic year 1994-95 is the most recent year for which statewide comparability of remedial student success rates is currently possible; complete TASP data for academic year 1995-96 have not been released as of the date of this writing. The exception to the preceding is that TASP Test pass rates are reported annually by THECB for all public institutions, and the report for academic year 1996-97, which has recently become available, is utilized to answer the first research question in this self-evaluation. However, there is no differentiation between remediated and nonremediated students in reporting the TASP Test pass rate, nor are there identifiable cohorts.

An Evaluation Of The Texas Academic Skills Program (TASP), THECB Executive Report, produced in September 30, 1996, was performed by a consulting team which found that the TASP Test "meets or exceeds all standards for controlling bias which may impact upon the performance of minority students." Though 30 to 48% of students tested fail one or more sections, this simply indicates that many high school graduates are inadequately prepared for college. The quality of developmental education in Texas is substandard. A majority of remedial teachers, many of whom are adjunct or part-time, lack formal or informal training in developmental education, and fail to take advantage of the professional publications, associations and training that are available. Even with widespread compliance with TASP regulations, the study concluded, there is little accountability for the results of the program.

Summary

In summary, lack of basic skills, access and diversity are intertwined with the need to provide quality developmental studies programs at HCCS. The four research questions discussed in Chapter 3 provide a framework that contrasts student outcomes for HCCS' programs with those of selected two-year colleges and with the aggregated outcomes for all Texas two-year institutions.

Chapter
3

Findings of the Self-Evaluation: Phase One

Preliminary Findings

The findings of this section of the study are based on data provided by the Texas Higher Education Coordinating Board. Comparison of HCCS student outcomes with those of other selected institutions is intended to provide context for the former. However, it is always the case with secondary analysis of data that researchers must examine the original objectives for which information was gathered as well as any limitations on the data.

As an example, the TASP Test pass rate, which is discussed in reference to the first research question, is compiled for all of the State's test takers during the academic year of 1996-97, regardless of remedial status or number of times the test was taken. Thus, the rate provides an important reference point for comparison among colleges but is not a precise measure of effectiveness of remediation. Limitations of each data set are included in the respective discussions of findings.

Research Questions

Success Rate of HCCS Students in Comparison with Other Two-year Institutions

The four research questions for Phase One of the "Self-Evaluation" are intended to provide perspective to success rates of HCCS students by comparing them to achievements of their peers at other institutions. The questions considered pertain to TASP test pass rates; completion of remediation and success as measured by GPA of 2.0 or better overall and passing grades in related college courses; success of remediated versus nonremediated students; and comparison of success rates by ethnicity.

Although TASP test passing rates are important indicators that are widely scrutinized, there are some significant limitations to these data. The passing figures contained in the report *Summary TASP Test Results for Academic Year 1996-97* (THECB, 1997) include students who "enrolled for at least one semester from September 1996 through August 1997" and who were tested during that academic year (THECB, 1997). Students may have attempted the test more than once and there is no indication whether or not students had received remediation. However, it can be assumed that these qualifications affect the student bodies of all institutions in a similar manner, allowing limited comparisons to be made with the aggregated scores of all Texas two-year public institutions and the other colleges.

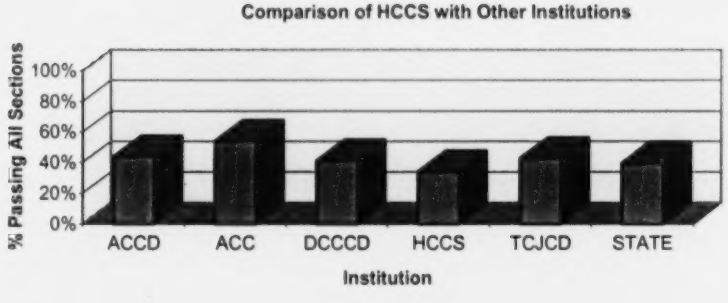
TASP Test Pass Rates

Research Question 1. How does the TASP Test pass rate for HCCS students compare to that of students in other institutions?

Passing All Three Sections of the TASP Test

As can be seen in the charts which follow, the passing rate at all Texas two-year colleges on all three sections of the TASP Test was 39.4%, while that rate for students at HCCS was 33.8%. Pass rates for other institutions utilized in this study exceeded those for HCCS and for two-year public institutions in Texas.

TASP Pass Rate on All Three Sections State Cohort Academic Year 1996-97		
Institution	**%Passing**	**#Tested**
Alamo Community College District (ACCD)	43.7%	6,382
Austin Community College (ACC)	53.6%	350
Dallas County Community College District (DCCCD)	40.9%	9,633
Houston Community College System (HCCS)	33.8%	8,058
Tarrant County Junior College District (TCJCD)	42.6%	4,642
Texas Two-year Institutions (STATE)	39.4%	92,154



Source: *Summary TASP Test Results for Academic Year 1996-97*

Passing TASP Test on Initial Attempt

As can be seen from the accompanying charts, the passing rate on initial attempt of 36.0% for HCCS students fell just below the aggregated rate of 38.5% for all two-year institutions. Pass rates for other institutions utilized in this study exceeded those for HCCS and for two-year institutions in Texas.

TASP Pass Rate on Initial Attempt State Cohort Academic Year 1996-97		
Institution	**%Passing**	**#Tested**
Alamo Community College District (ACCD)	40.0%	3,765
Austin Community College (ACC)	53.7%	2,710
Dallas County Community College District (DCCCD)	41.3%	5,412
Houston Community College System (HCCS)	36.0%	3,734
Tarrant County Junior College District (TCJCD)	41.3%	2,734
Texas Two-year Institutions (STATE)	38.5%	48,991

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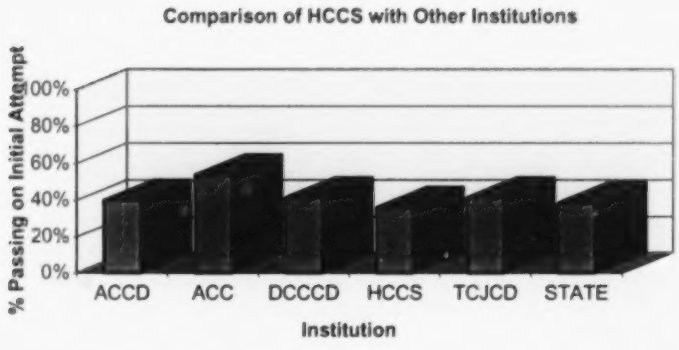

Source: *Summary TASP Test Results for Academic Year 1996-97*

The percentage of students passing all sections of the TASP Test *on the initial attempt* is more appropriately considered as an indicator of overall preparedness of students entering a given institution than as a measure of the effectiveness of the remediation provided by the college. The basis for this reasoning is that those students included with passing scores may have: 1) taken the test while in high school; 2) taken the test while out of school but previous to any remedial courses; 3) as well as those who have taken the test for the first time after being diagnosed with a locally prescribed test as needing remediation *and after* completing the remedial courses.

Exemptions from TASP Testing

Since academic year 1993-94, the number of exemptions from TASP testing has increased due to legislated changes in the THECB rules. The new rules allow exemption from TASP testing when a student has performed satisfactorily on the ACT, SAT or TAAS test. In 1996-97, 22,951 exemptions were granted statewide. Universities granted 66% of the exemptions that year. The chart below compares exemptions granted by HCCS, selected Texas colleges and all two-year institutions in the state.

Exemptions Granted from TASP
State Cohort Academic Year 1996-97

Institution	% Exempt	# Exempt	Total Students
Alamo Community College District (ACCD)	12.0%	869	7,251
Austin Community College (ACC)	10.2%	1,096	10,729
Dallas County Community College District (DCCCD)	7.4%	350	4,760
Houston Community College System (HCCS)	4.9%	419	8,477
Tarrant County Junior College District (TCJCD)	10.5%	545	5,187
Texas Two-year Institutions (STATE)	7.8%	7,811	99,965

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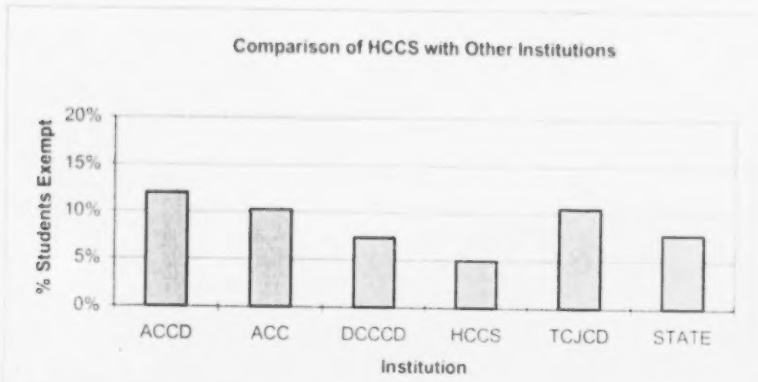

Source: *Summary TASP Test Results for Academic Year 1996-97*

The overall effect of the exemptions has been to exclude the better-prepared students from TASP testing, thereby depressing the passing rate. The rate of exemptions granted by a particular institution can be viewed as an indicator of the college readiness of its newly enrolling students, with a higher rate signaling a better-prepared student body. As shown in the above chart, HCCS students were least likely to be exempted when compared to students at other institutions utilized in this study.

Completion of Remediation and Success in Related College Courses

The second research question deals with the performance of a given group or cohort of students. In this section, an entering cohort is analyzed in regard to need for and completion of remediation, as well as for completion of related college work in each discipline. It should be remembered that any given cohort will include students with a variety of educational goals, some of which do not include academic coursework.

Research Question 2. From a given cohort of HCCS students, how many completed remediation and successfully completed related college-level work? How do these completion rates compare to those of other institutions?

According to data files available from the Texas Higher Education Coordinating Board, the entering cohort of first-time freshmen at HCCS was comprised of 5,309 students in the fall term of 1994-95. Of these, 4,795 (90.3%) were tested, and 514 were untested due to exemptions based on previous testing. The following discussion pertains to the achievements of this group as of the end of the spring term of 1995-96. Achievements of the HCCS student cohort are compared with those of similar cohorts at other colleges in the state.

Mathematics

Of 4,795 HCCS students tested in Fall 1994, 836 did not require remediation in mathematics. Assuming that the 514 who were not tested had performed at satisfactory levels on an equivalent test (SAT, ACT or TAAS) in order to qualify for an exemption, a total of 1,350 or 25.4% of the cohort did not require remediation in mathematics.

Eight hundred seventy-eight (878) students required remediation based on TASP scores, and 3,081 required remediation based on local requirements, totaling 74.5% of the total cohort in need of basic skills training in mathematics.

Of all those requiring developmental mathematics, 1,177 (22.2% of the original cohort) completed remediation and 2,782 did not. Seven hundred fifty-six (756 or 14.2% of the cohort) attempted the first college-level mathematics course, and 483 (9.1%) completed it successfully. Of the students not requiring mathematics remediation, 390 (7.3% of the cohort) completed the first college-level mathematics course successfully. However, 390 successful students represent a completion rate of 63.9% for those actually attempting the course.

Table 1: Overview of HCCS 1994-95 Cohort, Mathematics

Category	Number	Percentage of Cohort
Students tested	4,795	90.3%
Students exempt from testing	514	9.7%
Entering cohort, 1994-95	**5,309**	**100.0%**

Table 2: Proportion of HCCS 1994-95 Cohort Not Requiring Remediation in Mathematics

Category	Number	Percentage of Cohort
Students not requiring mathematics remediation due to satisfactory performance on TASP or local test	836	15.7%
Students exempt from testing due to satisfactory performance on SAT, ACT or TAAS	514	9.7%
Total students not requiring mathematics remediation	**1,350**	**25.4%**

Table 3: Proportion of HCCS 1994-95 Cohort Requiring Remediation in Mathematics

Category	Number	Percentage of Cohort
Students requiring mathematics remediation per TASP scores	878	16.5%
Students requiring mathematics remediation based on local requirements	3,081	58.0%
Total students requiring mathematics remediation	**3,959**	**74.5%**

Table 4: Proportion of HCCS 1994-95 Cohort Attempting and Passing First College-Level Math Course

Category	Number	Percentage of Cohort
Students completing remediation (completers=29.7% of those requiring remediation)	1,177	22.2%
Completers attempting first college-level mathematics course	756	14.2%
Completers passing first college-level mathematics course (63.9% of completers attempting course)	483	9.1%
Students not requiring mathematics remediation attempting first college-level mathematics course	582	11.0%
Students not requiring mathematics remediation passing first college-level mathematics course (67.0% of nonremedial students attempting course)	390	7.3%

Source Tables 1-4: THECB Data Files, 1994-95

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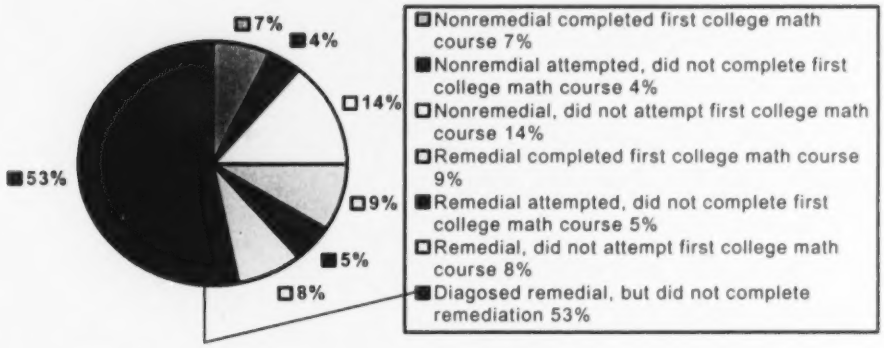
Analysis of HCCS Cohort First-time Freshman Entering Fall 1994-95: Achievements in Mathematics End of Spring Term 1995-96


7%
4%
14%
53%
9%
5%
8%
Nonremedial completed first college math course 7%
Nonremdial attempted, did not complete first college math course 4%
Nonremedial, did not attempt first college math course 14%
Remedial completed first college math course 9%
Remedial attempted, did not complete first college math course 5%
Remedial, did not attempt first college math course 8%
Diagosed remedial, but did not complete remediation 53%

Source: THECB Data Files, 1994-95

As shown in the above pie chart, the largest single segment of the cohort of 5,309 students is comprised of those (2,782 students) who: 1) were diagnosed as needing remediation, and 2) did not complete remediation. It should be noted that many of these individuals may be pursuing more limited educational goals that do not include completion of basic skills courses.

Reading

Of those tested, 1,706 did not require remediation in reading. Assuming that the 514 who were not tested had performed at satisfactory levels on an equivalent test (SAT, ACT or TAAS) in order to qualify for an exemption, a total of 2,220 or 41.9% of the cohort did not require remediation in reading.

Seven hundred fifty-seven (757) students required remediation based on TASP regulations, and 2,332 required remediation based on local requirements, totaling 58.2% of the total cohort in need of basic skills training in reading. Of all those requiring reading remediation, 616 (11.6%) of the original cohort completed it.

Table 5: Overview of HCCS 1994-95 Cohort, Reading

Category	Number	Percentage of Cohort
Students tested	4,795	90.3%
Students exempt from testing	514	9.7%
Entering Cohort, 1994-95	**5,309**	**100.0%**

Table 6: Proportion of HCCS 1994-95 Cohort Not Requiring Remediation in Reading

Category	Number	Percentage of Cohort
Students not requiring reading remediation due to satisfactory performance on TASP or local test	1,706	32.1%
Students exempt from testing due to satisfactory performance on SAT, ACT or TAAS	514	9.7%
Total students not requiring reading remediation	**2,220**	**41.9%**

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Table 7: Proportion of HCCS 1994-95 Cohort Requiring Remediation in Reading

Category	Number	Percentage of Cohort
Students requiring reading remediation per TASP regulations	757	14.3%
Students requiring reading remediation based on local requirement	2,332	43.9%
Total students requiring reading remediation	3,089	58.2%
Total students completing reading remediation (completers=20% of those requiring remediation)	616	11.6%

Source Tables 5-7:THECB Data Files, 1994-95

Writing

Of those tested, 1,473 did not require remediation in writing. Assuming that the 514 who were not tested had performed at satisfactory levels on an equivalent test (SAT, ACT or TAAS) in order to qualify for an exemption, a total of 1,987 or 37.4% of the cohort did not require remediation in writing.

Eight hundred eleven (811) students required remediation based on TASP regulations, and 2,511 required remediation based on local requirements, totaling 62.6% of the total cohort in need of basic skills training in writing.

Of all those requiring writing remediation, 776 (14.6% of the original cohort) completed it as indicated by passing the TASP Test. Six hundred ninety-three (693) (or 13.1% of the cohort) attempted the first college-level English course, and 565 (10.6%) completed it successfully. Of the students not requiring writing remediation, 1,002 (18.9% of the cohort) completed the first college-level English course successfully.

When success rates are compared for those students who completed remediation in writing and for those not requiring remediation, it can be seen that the completers passed the first college-level English course at a higher rate than their unremediated peers: 81.5% of those remediated students attempting the course passed, in contrast with 77.1% of students who had not required remediation. It could be inferred that the remediation provided was successful in preparing academically disadvantaged students to perform at the college level.

Table 8: Overview of HCCS 1994-95 Cohort, Writing

Category	Number	Percentage of Cohort
Students tested	4,795	90.3%
Students exempt from testing	514	9.7%
Entering cohort, 1994-95	**5,309**	**100.0%**

Table 9: Proportion of HCCS 1994-95 Cohort Not Requiring Remediation in Writing

Category	Number	Percentage of Cohort
Students not requiring writing remediation due to satisfactory performance on TASP or local test	1,473	27.7%
Students exempt from testing due to satisfactory performance on SAT, ACT or TAAS	514	9.7%
Total students not requiring writing remediation	**1,987**	**37.4%**

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Table 10: Proportion of HCCS 1994-95 Cohort Requiring Remediation in Writing

Category	Number	Percentage of Cohort
Students requiring writing remediation per TASP regulations	811	15.2%
Students requiring writing remediation based on local requirements	2,511	47.3%
Total students requiring writing remediation	**3,322**	**62.6%**

Table 11: Proportions of HCCS 1994-95 Cohort Attempting and Passing First College-Level English Course

Category	Number	Percentage of Cohort
Students completing remediation (completers=23.4% of students requiring remediation)	776	14.6%
Completers attempting first college-level English course	693	13.1%
Completers passing first college-level English course (completers=81.5% of those attempting course)	**565**	**10.6%**
Students not requiring writing remediation attempting first college-level English course	1,299	24.5%
Students not requiring writing remediation passing first college-level English course (completers=77.1% of those attempting course)	**1,002**	**18.9%**

Source Tables 8-11: THECB Data Files, 1994-95

Completers Passing First College-Level Courses Related to Remediation 1994-95 State Cohort						
Institution	Percentage of Cohort Requiring Remediation			Percent of Those Attempting Who Complete First College-Level Course		
	Math	Reading	Writing	Math	Reading	Writing
Alamo Community College District (ACCD)	65.2%	62.9%	65.8%	68.3%	N/A	77.2%
Austin Community College (ACC)	50.8%	43.9%	48.9%	54.1%	N/A	71.5%
Dallas County Community College District (DCCCD)	38.4%	32.2%	35.4%	53.3%	N/A	79.9%
Houston Community College System (HCCS)	74.6%	58.2%	62.6%	63.9%	N/A	81.5%
Tarrant County Junior College District (TCJCD)	41.7%	30.0%	33.8%	52.9%	N/A	73.3%
Texas Two-year Institutions (STATE)	47.3%	47.2%	39.6%	58.7%	N/A	72.8%

Source: THECB Data Files, 1994-95.

When compared with other colleges in the state, HCCS students were more likely than most to require remediation in all three areas, most notably in mathematics. Of those who attempted the first college-level course in mathematics or writing, HCCS students completed it at a rate that exceeded the state average and that some of the selected colleges.

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Success of Remediated versus Nonremediated Students

The third research question deals with the comparative success rates of remediated students and nonremediated students in related college work. The decision is based on the assumption that a major goal of remediation is to develop in identified students the basic skills needed to succeed academically at a similar rate to their better-prepared peers.

Research Question 3: How does the performance of remediated versus nonremediated students at HCCS compare to that of like students in other two-year institutions? Use the following as success indicators:

- GPA of 2.0 or better, overall
- Passing grade in the first college-level mathematics or English course

Success in First College-Level Mathematics Course

The chart that follows represents the performance of the cohort which first enrolled in Texas colleges in 1994-95. As of the end of the spring term of 1996, the percentages of remediated students attempting the first college-level mathematics course who completed it successfully are compared with percentages of completion by those who did not require mathematics remediation. Completion is defined as earning a grade of 2.0 or better in the course. Comparisons of the two groups are made: 1) for the aggregated percentages of all two-year Texas colleges; 2) for selected colleges of interest; and 3) for Houston Community College System. If all other factors are equal, the smaller differentials between performance of remediated and nonremediated students indicate more successful remedial programs (THECB, 1996).

Performance of Math Remediated Students in First College-Level Mathematics Course
1994-95 State Cohort and HCCS and Selected Two-Year Institution Cohorts

Institution	Achievement of 2.0 GPA		
	Did Not Require Remediation	Remediated Students	Performance Differential
Alamo Community College District (ACCD)	64.43%	68.29%	-3.87%
Austin Community College (ACC)	67.45%	52.61%	14.84%
Dallas County Community College District (DCCCD)	64.00%	54.07%	9.93%
Houston Community College System (HCCS)	67.01%	63.89%	3.12%
Tarrant County Junior College District (TCJCD)	61.69%	52.94%	8.75%
Texas Two-year Institutions (STATE)	69.19%	58.69%	10.50%

As can be seen from the chart above, HCCS students who are math remediated perform at a similar rate to their nonremediated peers. The performance differential for HCCS students is lower than the state average and lower than several other schools in the study, which may be considered an indicator of effective remediation.

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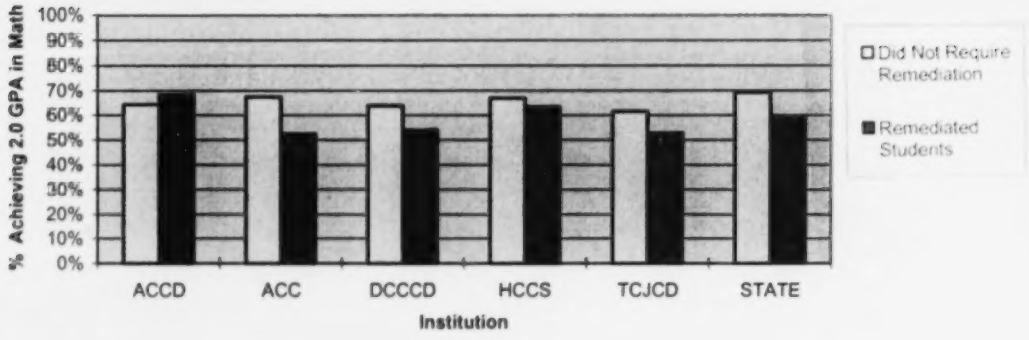
Comparison of HCCS with Other Institutions



Source: THECB Data files, 1994-95

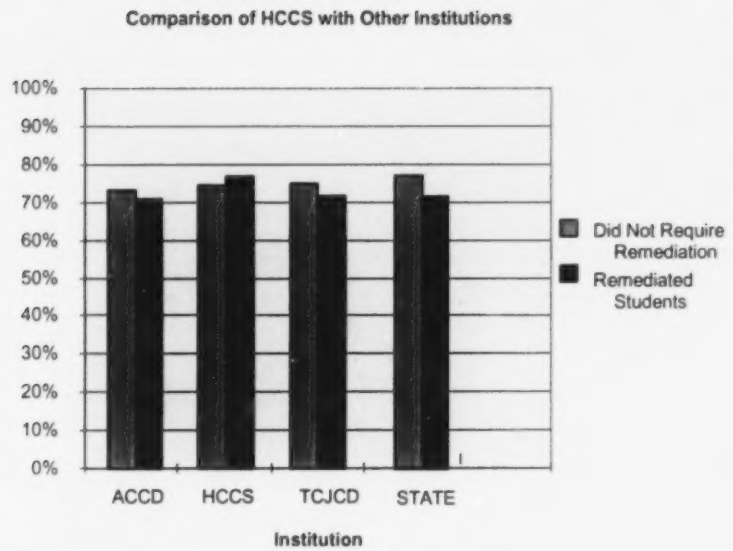
Success in Reading

The following two charts represent data concerning the performance of the cohort which first enrolled in Texas colleges in 1994-95. Unlike the areas of mathematics and writing, developmental reading has no college-level course, which can be utilized as a direct measure of the success of remediation. For purposes of this study, successful remediation in reading will be inferred from overall success of students in college-level work, as measured by achievement of a 2.0 GPA. As of the end of the spring term of 1996, the percentages of remediated students achieving a 2.0 GPA are compared with percentages of success by students not requiring remediation. Comparisons are made: 1) for the aggregated percentages of all two-year Texas colleges; 2) for selected colleges of interest; and 3) for Houston Community College System.

Performance of Reading Remediated Students in Overall College-level Work
1994-95 State Cohort and HCCS and Selected Two-Year Institution Cohorts

Institution	Achievement of 2.0 GPA		Performance Differential
	Did Not Require Remediation	Remediated Students	
Alamo Community College District (ACCD)	73.2%	70.6%	2.6%
Houston Community College System (HCCS)	74.6%	76.8%	-2.2%
Tarrant County Junior College District (TCJCD)	74.7%	71.7%	3.0%
Texas Two-year Institutions (STATE)	77.3%	71.5%	5.8%

When remediated students' performance falls approximately within a 10% range of the performance of students not requiring developmental studies instruction, the remediation is generally considered to have been successful (THECB, 1996). If all other factors are equal, smaller performance differentials between the two groups would seem to indicate more successful remediation. As can be seen, HCCS students who completed remediation were more likely to achieve a 2.0 GPA than those who tested as not requiring remediation.



Source: THECB Data Files, 1994-95

Success in First College-Level English Course

At the end of the spring term of 1996, the cohort which first enrolled in Texas colleges in 1994-95 had performed as indicated in the following chart. The percentages of remediated students attempting the first college-level writing course who completed it successfully are compared with percentages of completion by those who did not require writing remediation. Completion is defined as earning a grade of 2.0 or better in the course. Comparisons of the two groups are made: 1) for selected colleges of interest; 2) for all Texas two-year institutions; and for Houston Community College System. Smaller differentials between performance of remediated and nonremediated students indicate more successful remedial programs (THECB, 1996).

Performance of Wrting Remediated Students in First College-Level English Course
1994-95 State Cohort and HCCS and Selected Two-Year Institution Cohorts

Institution	Achievement of 2.0 GPA		
	Did Not Require Remediation	Remediated Students	Performance Differential
Alamo Community College District (ACCD)	90.8%	77.2%	13.6%
Austin Community College (ACC)	76.2%	71.5%	4.7%
Dallas County Community College District (DCCCD)	80.3%	79.9%	0.4%
Houston Community College System (HCCS)	77.1%	81.5%	-4.4%
Tarrant County Junior College District (TCJCD)	80.7%	73.3%	7.4%
Texas Two-year Institutions (STATE)	79.9%	72.7%	7.2%

Source: THECB Data Files, 1994-95

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As indicated in the preceding chart, HCCS students who complete remediation were somewhat more likely to complete the first college-level writing course successfully than were those who were assessed as not requiring remediation. Statewide, and in four of the five selected colleges, remediated students attained a 2.0 GPA at somewhat higher rates than their remediated counterparts.

Comparison of Success Rates by Ethnicity

Differentials in entry rates to higher education and in academic performance among ethnic groups have been documented at the state level and nationally, as discussed in Chapter 2 of this report. Generally attributed to a constellation of socioeconomic and cultural factors, these gaps in performance are receiving increasing attention at all age levels as demographics shift in Texas and across the nation.

Research Question 4. How does the ethnic composition of HCCS' incoming students compare to that of other two-year institutions in the state? Do success rates vary when analyzed by student ethnicity?

Again referring to data files from the Texas Higher Education Coordinating Board, the entering cohort of first-time freshmen at HCCS in fall of 1994 was composed of 36% Anglo-American, 20% African-American, 27.2% Hispanic and 16.7% reported as Other. Among the colleges profiled in this study, only Alamo Community College District served a greater percentage of minority students than HCCS in the fall of 1994.

Students Served: Comparison by Ethnicity
Entering Cohort of First Time Freshmen Fall 1994

Institution	Ethnic Group				Number Students in Cohort
	Anglo-American	African-American	Hispanic	Other	
Alamo Community College District (ACCD)	33.2%	6.2%	57.3%	3.3%	6,360
Austin Community College (ACC)	66.0%	6.1%	20.4%	7.5%	3,842
Dallas County Community College District (DCCCD)	56.3%	16.9%	17.3%	9.5%	8,482
Houston Community College System (HCCS)	36.0%	20.0%	27.2%	16.7%	5,309
Tarrant County Junior College District (TCJCD)	69.9%	12.2%	11.4%	6.5%	5,085
Texas Two-year Institutions (STATE)	57.9%	9.6%	27.5%	5.0%	85,056

Source: THECB Data Files, 1994-95

As can be seen in the chart that follows, HCCS students who completed remediation and attempted college-level mathematics passed the course at a rate higher than the state average. In addition, with the exception of Anglo-American students, all of HCCS' ethnic groups surpassed the state average for their respective groups. African-American students at HCCS passed at a higher rate than their peers at most of the selected schools in the study. Hispanics at HCCS passed at a higher rate than their peers at any of the selected schools. Students reported as "other" passed at the highest rate of all the other groups at HCCS, in the state as a whole and at several of the selected colleges.

Comparison by Ethnicity
Percentage of Remedial Completers Passing First College-Level Mathematics Course
1994-95 State Cohort

Institution	Students Attempting & Passing					
	Ethnic Group				Total Student Group	
	Anglo-American	African-American	Hispanic	Other	Percent Attempting & Passing	Number Attempting
Alamo Community College District (ACCD)	67.9%	69.2%	68.3%	70.6%	68.3%	328
Austin Community College (ACC)	56.9%	40.0%	53.8%	38.1%	54.1%	209
Dallas County Community College District (DCCCD)	51.0%	60.0%	50.0%	62.5%	53.3%	287
Houston Community College System (HCCS)	56.9%	60.0%	65.4%	77.8%	63.9%	756
Tarrant County Junior College District (TCJCD)	47.4%	45.5%	83.3%	75.0%	52.9%	153
Texas Two-year Institutions (STATE)	58.6%	58.6%	57.2%	67.0%	58.7%	5,923

Source: THECB Data Files, 1994-95

Similarly, passing rates in the first college-level writing course at HCCS for Anglo-American students were surpassed by those of all three other ethnic groups reported. This pattern was not repeated by reports from other schools studied nor in the aggregated statistics for Texas two-year institutions. In both mathematics and writing, it would appear that HCCS' minority students are receiving remediation which allows them to succeed at rates which somewhat exceed those of their remediated Anglo-American peers.

Comparison by Ethnicity
Percentage of Remedial Completers Passing First College-Level Writing Course
1994-95 State Cohort

Institution	Students Attempting & Passing					
	Ethnic Group				Total Student Group	
	Anglo-American	African-American	Hispanic	Other	Percent Attempting & Passing	Number Attempting
Alamo Community College District (ACCD)	77.0%	78.7%	76.6%	87.1%	77.2%	939
Austin Community College (ACC)	73.4%	57.1%	66.1%	75.7%	71.5%	260
Dallas County Community College District (DCCCD)	81.0%	73.4%	78.7%	86.9%	79.9%	656
Houston Community College System (HCCS)	78.2%	81.9%	82.3%	83.4%	81.5%	693
Tarrant County Junior College District (TCJCD)	75.1%	69.6%	71.2%	70.6%	73.3%	345
Texas Two-year Institutions (STATE)	72.5%	76.4%	70.4%	79.0%	72.8%	7,237

Source: THECB Data Files, 1994-95

In conclusion, it appears that HCCS provides an instructional environment that equitably fosters success for its diverse student body.

Discussion and Conclusions

The "Self-Evaluation of Effectiveness of the Developmental Studies Programs of HCCS" is an outgrowth of the desire of faculty and administration to learn "how we're doing" in providing remedial services to the System's students. Phase One of the study utilizes several specific indicators of success as points of comparison between HCCS' developmental studies programs and those of selected two-year colleges in the State. TASP program data for the 1994-95 student cohort and the Texas Higher Education Coordinating Board's 1996-97 report on TASP Test results provide the information base for comparisons among the institutions. While researchers have some reservations regarding the data, these reports are nonetheless the most consistent and comprehensive statewide figures currently available.

The first measure utilized by the study is success on the TASP Test. HCCS' 1996-97 pass rates for the exam, as reported by THECB, were exceeded by those of other institutions in the study and by the statewide passing rate for two-year colleges. However this is not a clear indicator of the success or lack thereof of developmental studies programs, as students who take the test may have done so before, during or after any remedial instruction occurred. Such general results are more indicative of the overall level of preparedness of a student body than of program quality. Likewise, the rate of TASP exemptions for HCCS students who performed successfully on other standardized tests was the lowest in 1996-97 among the colleges selected for the study, and it is lower than the statewide rate for that year. All of these findings indicate that HCCS' students may be significantly less college-ready than those entering other two-year institutions.

The second measure utilized in the "Self-Evaluation" is analysis of the 1994-95 incoming student cohort to determine how many completed remediation and related college-level work. Although 74.5% of incoming HCCS students required remediation in mathematics, the remediation and first college-level mathematics course were completed successfully by only 9.1% of the cohort. Fewer HCCS students (62.6%) required remediation in writing, but a similarly small percentage (10.6%) of the cohort completed the first college-level English course. Of the 58.2% of the cohort requiring reading remediation, only 11.6% completed it, with the numbers and percentages of completers being correspondingly low statewide. HCCS students who attempted mathematics remediation and related college-level work were more likely to complete successfully than those in some of the selected colleges and in the state overall. Likewise HCCS reported higher success rates than most colleges and the state overall for those completing writing remediation and attempting the first college-level course. When considering successful completers as percentages of a total cohort, it should be considered that not all community college students have achievement of a degree as a goal. Further research is needed to identify student goals and foster student success in all areas. Conclusions pertaining to this measure are that HCCS students are achieving at a similar rate in remediation as compared to other similar colleges, and in some areas they are exceeding the success rate for the state overall.

The third indicator utilized in this study was the performance of remediated students as compared with their unremediated peers. This measure is based on the assumption that a major goal of remediation is to develop in identified students the basic skills needed to succeed academically at a similar rate to those not identified as needing remediation. HCCS students were more successful than those at most of the colleges selected for study and than the state overall, as indicated by a small performance differential in college-level work between remediated and unremediated students (3.12 % in mathematics and -4.14% in writing). HCCS students who completed reading remediation achieved a grade point average of 2.0 at a slightly higher rate than their unremediated peers, exceeding both the state success rate and that of the other colleges in the study. These findings indicate that successful remedial instruction is in place in comparison with results achieved at other similar institutions.

The fourth indicator considered in this study was the rate of student success as analyzed by student ethnicity. It was seen that HCCS serves a greater number and proportion of non-Anglo-American

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students than the state average, and it exceeds all of the colleges in the study except Alamo Community College District in this regard. In addition, African-American, Hispanic and Other-classified students passed the first college-level mathematics course at a higher rate than their Anglo-American peers. Similar results were observed in college-level writing, where Anglo-American students were the least successful of the ethnic groups reported, although exceeding the performance of their peers statewide. These results seem to indicate a remedial process that facilitates success for students of all ethnic groups and which exceeds in some ways the performance of other colleges in the study.

In conclusion, it appears that HCCS serves a particularly underprepared population of students who, after remediation, succeed at a comparable or higher rate than similar students at other colleges. In some cases HCCS' remediated students succeed at a higher rate than students who were not diagnosed as requiring developmental instruction. In addition, HCCS' African-American, Hispanic and Other-classified students succeed at a higher rate than its Anglo-American students, indicating an instructional environment that effectively meets the needs of a diverse student body. The small numbers of students who continue and complete remediation at HCCS and elsewhere are problematic, and these statistics signal a need for further research to determine what instructional strategies are most appropriate for facilitating success for underprepared students.

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